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SAP/BSTZ BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			EXAMINER SHEIKH, ASFAND M	
			ART UNIT 3627	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/676,401  
Filing Date: October 01, 2003  
Appellant(s): ZIEGER, MARTIN C.

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Jonathan S. Miller  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 8/24/2009 appealing from the Office action mailed 12/19/2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: The following **new ground(s) of rejection** are applicable to the appealed claims:

**NEW GROUND(S) OF REJECTION**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-6 and 8-11 are rejected under 35 U.S.C. 101. Based on Supreme Court precedent and recent Federal Circuit decisions, a 35 U.S.C § 101 process must (1) be tied to a particular machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. In re Bilski et al, 88 USPQ 2d 1385 CAFC (2008); Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780,787-88 (1876).

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps. Thus, to qualify as a § 101 statutory process, the claim should positively recite the particular machine to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

Here, applicant's method steps are not tied to a particular machine and do not perform a transformation. Thus, the claims are non-statutory.

The mere recitation of the machine in the preamble with an absence of a machine in the body of the claim fails to make the claim statutory under 35 USC 101.

*Note the Board of Patent Appeals Informative Opinion Ex parte Langemyer et al.*

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,937,992	Benda et al.	8-2005
2003/0014286	Cappellini	1-2003
3,970,832	Itschner	7-1976

**(9) Grounds of Rejection**

**NEW GROUND(S) OF REJECTION**

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Here, applicant's method steps are not tied to a particular machine and do not perform a transformation. Thus, the claims are non-statutory.

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*Note the Board of Patent Appeals Informative Opinion Ex parte Langemyer et al.*

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benda et al. (US 6,937,992 B1) in view of Cappellini (US 2003/0014286 A1) and Itschner (US 3,970,832).

#### Claims 1, 3, 5, 8, 9, and 10

Benda discloses comprising: receiving a demand order including a set of products to be shipped (see at least, abstract and col. 4, lines 28-39 and col. 5, lines 41-63).

Benda fails to disclose simulating a loading of a shipment of the set of products into a set of transports; evaluating a shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement; and attempting to fill each transport in the set in simulating the loading of the shipment and further evaluating a constraint during the simulation and detecting a skipping of a range of the constraint and adjusting the simulating of the loading of the shipment in response to the skipping.

Cappellini discloses disclose simulating a loading of a shipment of the set of products into a set of transports (see at least, [0182]); evaluating a shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement (see at least, [0170] and [0188]); and attempting to fill each transport in the set in simulating the loading of the shipment (see at least, [0189]); [claim 3] wherein the complex logical statement is defined by a user (see at least, [0189]: various rules defined by a user); [claim 5] further comprising: downsizing the shipment to match a maximum capacity of the transport (see at least, [0183] and [0189]); [claim 8 and 10] wherein simulating includes incrementing an amount of a first product in the shipment by one shipping unit (see at least, [0182]: the examiner notes the use of a mathematical model that would adjust as necessary to fit a given rule (e.g. add, subtract, etc); [claim 9] wherein the shipping unit is a pallet (see at least, [185]).

It would have been obvious to one of ordinary skill in the art to modify the teachings of Benda's vehicle capacity maximization to include simulating a loading of a shipment of the set of products into a set of transports; evaluating a shipping rule for the shipment, the shipping rule is permitted to be a complex logical statement; and

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attempting to fill each transport in the set in simulating the loading of the shipment as taught by Cappellini. One of ordinary skill in the art would have been motivated to combine the teachings in order to used for the sole simple use of determining the availability of space or capacity for a required transport vehicle (see at least, Cappellini, [0183]).

Itschner discloses evaluating a constraint during the simulation and detecting a skipping of a range of the constraint and adjusting the simulating in response to the skipping (see at least, col. 2, lines 1-14: the examiner notes ignoring (e.g. is interpreted to be skipping) and further simulation ion of temperature ranges (e.g. is interpreted to be a range of constraint values that are adjusted during the simulation based on the skipping (e.g. ignoring)).

It would have been obvious to one of ordinary skill in the art to modify the teachings of Benda's vehicle capacity maximization to include discloses evaluating a constraint during the simulation and detecting a skipping of a range of the constraint and adjusting the simulating in response to the skipping as taught by Itschner. One of ordinary skill in the art would have been motivated to combine the teachings in order to provide method by which data can be reproduced electrically by simple means with accuracy sufficient for control purposes over a relatively large range. (see at least, Itschner, col. 1, lines 48-51).

### Claims 2

Benda discloses further comprising: simulating one of a balanced load and a straight load of the shipment in the transport (see at least, col. 5, lines 15-57: the examiner



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notes straight loading is used: one shipment then building on the one shipment with another shipment).

#### Claims 4

Benda discloses further comprising: upsizing the shipment to fill the transport (see at least, col. 5, lines 15-57: the examiner notes straight loading is used: one shipment then building on the one shipment with another shipment).

#### Claims 6

Benda discloses wherein the shipping rules include at least one constraint including one of a weight constraint, a volume constraint, and a product combination constraint (see at least, col. 5, lines 15-57: the examiner notes the use of a volume constraint to maximize a vehicle capacity).

#### Claims 11

Benda discloses further comprising: attempting to fill at least one transport, the at least one transport having multiple destinations (see at least, col. 5, lines 15-57: the examiner notes attempting to fill the transport via the use of multiple destinations).

### **(10) Response to Argument**

#### **Independent Claim 1**

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The appellant argues that the cited references of Benda in view of Cappellini and Itschner, more specifically Cappellini fail to disclose "attempting to fill each transport in the set in simulating the loading of the shipment."

The examiner notes Cappellini discloses "attempting to fill each transport in the set in simulating the loading of the shipment" (see at least, [0189]). The examiner notes Cappellini states "... the Spatial management system can perform management of capacity in a substantially simulated multi dimensional environment..." (see at least, [0189]). The examiner has interpreted that the capacity would relate to a container of a truck (see [0185]). Further the Spatial management system can perform management of the capacity (e.g. interpreted to be managing of space of a container) based on the simulated multi-dimensional environment of the container. The examiner notes Cappellini states the use of three-dimensional models that allow for a substantially simulated environment of the real conditions within the service provider carrier unit (e.g. container) (see at least, [0184]). The examiner notes as interpreted the disclosure of Cappellini reads on the application's claimed limitation therefore this argument is not persuasive.

The appellant argues that the cited references of Benda in view of Cappellini and Itschner, more specifically, Itschner fail to disclose "detecting a skipping of the range of the constraint and adjusting the simulating of the loading of the shipment in response to the skipping."

The examiner notes the combination of Benda in view of Cappellini, more specifically Cappellini, was used to disclose the simulating of the loading of the

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shipment (see at least, [0189]). Further the examiner notes Cappellini discloses the use of a Rules and Optimization Engine that can take account for box options (e.g. shape) and box weight (see at least, [0186]: the examiner notes these can be interpreted to be a form of a constraint). Further Cappellini discloses complex rules can be set up to taken into account these constraints for the purpose of loading (e.g. "straight up unless on top" weight constraint) (see at least, [0186]). From here the examiner sought to combine Itschner to disclose evaluating a constraint during the simulation and detecting a skipping of a range of the constraint and adjusting the simulating in response to the skipping (see at least, col. 2, lines 1-14). The examiner has interpreted that the ignoring of a given range of pressure temperatures during a simulation to be a constraint (e.g. range) that is skipped (e.g. ignored) during a simulation and further the reduction of the negligible significance of these ignored ranges during the Koch state equation calculation is the actual adjustment of the equation based on the skipped constraint (e.g. ignored range of temperatures). The examiner notes from the cited sections of Cappellini and Itschner one of ordinary skill in the art would have realized modification to Cappellini's rules could take place to "ignore" a given range of "box weight" in the Rules and Optimization Engine (e.g. boxes over a given weight, would be ignored during the simulation of a rule).

The examiner notes Itschner is not analogous art with respect to loading a shipment, however the element combined from Itschner is analogous to the idea of a skipping range during a simulation of a rule (e.g. Koch state equation).

Further the examiner has cited motivation for the combination of Itschner:” method by which data can be reproduced electrically by simple means with accuracy sufficient for control purposes over a relatively large range (see at least, Itschner, col. 1, lines 48-51)” which interpreted would relate to the idea of using a electrical simulation to provide accuracy for a given range of control.

The examiner notes one of ordinary skill in the art would have been able to realize that simulation via the use of ignoring a range of values (see Itschner, col. 2, lines 1-14) could be implemented into the simulation of loading a container for maximum capacity (see Cappellini, [0183]-[0184] and [0186]) and from such a combination obtain a predictable result. Therefore the examiner finds these arguments not persuasive.

## **Claim 2**

The appellant argues that Benda in view of Cappellini and Itschner, more specifically Benda, fail to disclose “simulating one of a balanced load and a straight load of the shipment in the transport.”

The examiner notes Benda discloses “simulating one of a balanced load and a straight load of the shipment in the transport,” (see at least, col. 7, lines 15-57) The examiner has interpreted that straight loading is used (e.g. one shipment then building on the one shipment with another shipment). The examiner notes by utilizing the idea of straight loading a full truck of supplies are sent to one customer (e.g. ketchup, utensils, and napkins) instead of three separate loads. Therefore the examiner finds this argument not persuasive.

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### **Claim 3**

The appellant argues that Benda in view of Cappellini and Itschner, more specifically, Cappellini, fail to disclose “wherein the complex logical statements is defined by a user.”

The examiner notes Cappellini discloses “wherein the complex logical statement is defined by a user” (see at least [0186]). The examiner notes a user (e.g. allows “you”) to set up more complex loading rules. The examiner has interpreted setting up complex rules to be defining logical statements by a user. Therefore the examiner finds this argument not persuasive.

### **Claim 4**

The appellant argues Benda in view of Cappellini and Itschner, more specifically Benda, fail to disclose “upsizing the shipment to fill the transport.”

The examiner notes Benda discloses “upsizing the shipment to fill the transport” (see at least, col. 5, lines 15-57 and col. 7, lines 15-57). The examiner notes the idea of achieving maximum capacity for a truck load would be interpreted to be upsizing the shipment (e.g. by cross-dock). Therefore the examiner finds this argument not persuasive.

### **Claim 5**

The appellant argues Benda in view of Cappellini and Itschner, more specifically Cappellini, fail to disclose “downsizing the shipment to match a maximum capacity of the transport.”

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The examiner notes Cappellini discloses “downsizing the shipment to match a maximum capacity of the transport” (see at least, [0183] and [0189]). The examiner notes the idea of a load continually fitting into a transport via minimum loading (e.g. if a load is too big the minimum loading to fitting into a transport (e.g. max space)) can be utilized (e.g. an interpretation taken by the examiner. Therefore the examiner finds this argument not persuasive.

**Claim 11**

The appellant argues that Benda in view of Cappellini and Itschner, more specifically Benda, fail to disclose “attempting to fill at least one transport, the at least one transport having multiple destinations”.

The examiner notes Benda discloses “attempting to fill at least one transport, the at least one transport having multiple destinations” (See at lest, col. 5, lines 15-57 and col. 7, lines 15-57). The examiner notes by utilizing the idea of cross-dock on trailer would have two destinations the cross-dock and the customer. Therefore the examiner finds this argument not persuasive.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

This examiner's answer contains a new ground of rejection set forth in section **(9)** above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

**(1) Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

**(2) Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

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Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

Respectfully submitted,

/Asfand M. Sheikh/

Examiner, Art Unit 3627

**A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:**

/Wynn W. Coggins/

Director, TC 3600

Conferees:

/F. Ryan Zeender/

Supervisory Patent Examiner, Art Unit 3627

Vincent Millin /vm/

Appeals Conference Specialist



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